STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING OF SEPTEMBER 14, 2001
Prepared on August 7, 2001

ITEM: 28

SUBJECT: Executive Officer's Report to the Board

Brief discussion of some items of interest to the Board follow. Upon request, staff can provide more detailed information about any particular item.

Watershed and Cleanup Branch Reports

REGULATION SUMMARY OF JUNE/JULY 2001

[Corinne Huckaby 805/549-3504
and Maura Mahon 805/542-4642]

Orders

Reports of Waste Discharge Received	0
Requirements Pending	53
Inspections Made	12
Self-Monitoring Reports Reviewed (WB)	111
Self-Monitoring Reports Reviewed (CB)	62
Stormwater Reports Reviewed	6

Enforcement

Non-Compliance Letters Sent:	
NPDES Program	4
Non-Chapter 15 WDR Program	3
Chapter 15 Program	1
Unregulated	0
CAOs Issued	0
ACL Complaints	2

WATER QUALITY CERTIFICATIONS

[Corinne Huckaby 805/549-3504]

In general, staff recommends "Standard Certification" when the applicant proposes adequate mitigation. Measures included in the application must assure that beneficial uses will be protected, and water quality standards will be met.

Conditional Certification is appropriate when a project may adversely impact surface water quality. Conditions allow the project to proceed under an Army Corps permit, while upholding water quality standards.

Staff will recommend "No Action" when no discharge or adverse impacts are expected. Generally, a project must provide beneficial use and habitat enhancement for no action to be taken by the Regional Board. A chart on the following page lists applications received through July 31, 2001.

WATER QUALITY CERTIFICATION APPLICATIONS FROM JUNE 14, 2001 THROUGH JULY 31, 2001

DATE RECEIVED	APPLICANT	PROJECT DESCRIPTION	RECEIVING WATER	COMMENTS	PROJECT LOCATION
June 13, 2001	Cachuma Operation and Maintenance Board	Carneros Creek Crossing Repair	Carneros Creek	Standard Certification	Santa Barbara County
June 13, 2001	Monterey Peninsula Water Mgmt District	Installation of Large Woody Debris habitat Structures	Carmel River	Pending	Monterey County
June 14, 2001	Carmel PWD	Carmel bluff and Beach Access Restoration Project	Pacific Ocean	Standard Certification	Carmel
June 15, 2001	V&J Sand Mine	Sand and Gravel Mining	Santa Ynez River	Application withdrawn	Lompoc
June 19, 2001	Caltrans	Culvert Replacement PM 48.8 on Highway 1	Big Sur River	Standard Certification	Big Sur
June 22, 2001	SCVWD	Two Bank Stabilization Project	Rucker and East Little Llagas Creek	Standard Certification	San Martin, Gilroy
June 25, 2001	Dennis Bradshaw	Construct box culvert for driveway access for two parcels	Tributary to Salinas River	Pending	Paso Robles
June 26, 2001	Caltrans	Install headwalls	Doud Creek	Standard Certification	Big Sur
June 28, 2001	Santa Barbara County PWD	Clearing Rock and Debris from Three Summer Crossings	Canada Del Refugio Creek	Incomplete Application	Santa Barbara County
June 28, 2001	Caltrans	Culvert replacement PM 45.4 on Highway 1	Drainage	Standard Certification	Big Sur
June 28, 2001	Caltrans	Three Culvert Replacements	Unnamed tributary to San Antonio Creek	Pending	West of Los Alamos
June 29, 2001	San Luis Creek Assoc.	Creek Bank Restoration	San Luis Obispo Creek	Pending	San Luis Obispo
July 17, 2001	County of Santa Barbara Dept. of Parks	Goleta Beach Winter Dike Project	Goleta Slough	Pending	SB county
July 18, 2001	Santa Barbara County PWD	Construct pipe and tire dikes within Creek bed for erosion control	Salsipuedes Creek	Pending	Lompoc
July 20, 2001	Rancho Nipomo HOA	Rancho Nipomo HOA Road Project	Sycamore Creek	Standard Certification	Nipomo
July 23, 2001	Plan Vineyards Inc.	Mission Meadow Creek Crossing	Mission Meadow Creek; Santa Ynez River	Pending	Solvang
July 24, 2001	Caltrans	Repair Storm damage and install rock slope protection	Cholame Creek, Tributary to Estrella River	Pending	Shandon
July 25, 2001	City of Del Rey Oaks	Arroyo Del Rey Creek Improvements Project	Arroyo Del Rey Creek	Standard Certification	Del Rey Oaks
July 25, 2001	Weyrick Development	Construct Stormdrain structures for new roads at Santa Yzabel Ranch	Unnamed creek trib to Salinas River	Pending	Paso Robles
July 26, 2001	Thomas and Sonja Southwick	Creekbank Stabilization	Tepusquet Creek tributary to Swisquoc Creek	Pending	Santa Maria
July 26, 2001	Central Coast Water Authority	Microtunnel Bank Stabilization Project	Santa Ynez River	Pending	314
July 30, 2001	Archer Trust	Baranca Honda Creek Bridge Replacement	Baranca Honda Creek	Pending	Gaviota

WATERSHED BRANCH REPORTS

Status Reports

Aquatic Pesticide General Permit [Chris Adair 805/549-3761]

On March 12, 2001, the Ninth Circuit Court of Appeals decided that discharges of pollutants from the use of aquatic pesticides to waters of the United States require coverage under an NPDES permit, (Headwaters, Inc. v. Talent Irrigation District). The Talent decision was issued just prior to the major season for applying aquatic pesticides. Because of the serious public health, safety, and economic implications of delay in such applications, an NPDES Permit For Discharge Of Aquatic Pesticides To Waters Of The United States (General Permit) was developed on an emergency basis in order to provide coverage for broad categories of aquatic pesticide use in California. The State Water Resources Control Board (SWRCB) will rescind or revise this General Permit if the law as stated in the Talent decision changes.

Coverage under this General Permit is available to public entities (defined to include "the federal government or state, county, city and county, city, district, public authority, or public agency"). The General Permit allows for a categorical exception from meeting priority pollutant criteria/objectives for resource or pest management control measures conducted by "public entities." This limitation to "public entities" is based on the provisions of the SWRCB's *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (the State Implementation Policy). To qualify, dischargers must be licensed by the Department of Pesticide Regulation (DPR) or the Department of Health Services (DHS) and submit a fully completed Notice of Intent.

The General Permit covers the uses of properly registered and applied aquatic pesticides. A purpose of this Order is to minimize the areal extent and duration of adverse impacts to beneficial uses of water bodies treated with aquatic pesticides. The General Permit does not cover indirect or non-point source discharges from agricultural or other applications of pesticides to land that may be conveyed in storm water or irrigation runoff and does not cover applications of pesticides that are not registered for use on aquatic sites. The General Permit requires that the discharger must comply with all pesticide label instructions, DPR and DHS regulations, and any Use Permits issued by the County Agricultural Commissioners (CACs) and also specifies the steps that will be followed to identify and implement appropriate Best Management Practices (BMPs).

The SWRCB recognizes that the discharge of pollutants may also cause or contribute to exceedance of water quality standards for parameters or constituents that are not priority pollutants. The General Permit does not require immediate compliance with water quality standards for parameters or constituents that are not priority pollutants, but requires that the dischargers implement additional BMPs to eliminate or reduce the pollutants that are causing or contributing to exceedance. Dischargers are also allocated a temporal zone of impact on beneficial uses of water within which there may be a temporary exceedance of criteria, but the resulting impact must be transient, and must allow for full restoration of water quality and protection of beneficial uses upon project completion.

The General Permit requires that the discharger comply with the Monitoring and Reporting Program of the General Permit. The Monitoring Program requires the discharger to submit a monthly report to the appropriate Regional Water Quality Control Board documenting specific information for each aquatic pesticide treatment site and a calendar-year annual report to the Regional Board by January 31 of the following year (beginning January 2003). Dischargers are also required to submit technical and monitoring reports as directed by the appropriate Regional Board Executive Officer. Each Discharger shall submit a Plan to the appropriate Regional Board by March 1, 2002 for approval. The discharger shall implement the Plan by July 1, 2002 in accordance with any modifications required by the Regional Board. These monitoring plans will be the basis of monitoring requirements in the next

permit. The SWRCB will consider issuing future permits that are more limited in nature as to specific pesticides, types of resource and pest management programs, or areas of the State.

More information can be found in the Fact Sheet and the General Permit, and related documents, which are available on the State Board website: http://www.swrcb.ca.gov/

Pacific Grove Collection System [Lida Tan 805/542-4785]

On August 3, 2001, Regional Board staff sent a letter to the City requesting an update on the grease trap ordinance implementation program, an explanation of the Critical Repair Improvement Plan and implementation schedule on the recommendations made at the March 6, 2001 Collection System Workshop (See Attachment No.1). The City's update is expected by September 1, 2001, and can be summarized at the September 14th Board Meeting. Additionally, USEPA is evaluating the performance of the City's collection system. On July 20, 2001, USEPA sent a survey letter to the City (See Attachment No.2), as well as several other municipalities. Regional Board staff has been coordinating with USEPA regarding the survey. Survey results are due by September 20, 2001. Staff will continue to work with the City, USEPA and other agencies to improve the City's sewer collection system and reduce associated sewage spills.

Hollister Wastewater Update [Matt Fabry 805/549-3458]

On May 19, 2000, the Regional Board adopted Waste Discharge Requirements Order No. 00-020 for the City of Hollister's Industrial Wastewater Treatment Facility in San Benito County. Order No. 00-020 allows the City of Hollister (City) to discharge domestic wastewater to its Industrial Wastewater Treatment Facility. However, domestic wastewater flow capacity to the Industrial Wastewater Treatment Facility is phased based on the City reaching certain milestones in development of a Long-term Wastewater Management Program. The Regional Board granted an initial flow allocation to the City after it reached the first milestone.

The second milestone requires submission of and Executive Officer concurrence with a Groundwater Management Program Alternatives Matrix (Matrix). The Water Resources Association of San Benito County is preparing the Matrix and a draft is scheduled for submittal to the Regional Board in mid-September 2001, along with a request for additional flow capacity. (This constitutes a four-month delay in the original schedule. The City believes this delay will be made up in subsequent stages of development of the Long-term Wastewater Management Program.) Upon completion, the Matrix will be reviewed with various stakeholders and a preferred program for groundwater management will be developed. The preferred program, together with alternative programs for comprehensive groundwater management, will be the basis for the Water Resources Association's Programmatic Environmental Impact Report.

The City is also required, prior to requesting additional flow capacity under the second milestone, to submit an evaluation of the effectiveness of its Odor Management Plan. During the summer of 2000, multiple odor complaints were filed against the City related to its wastewater collection, treatment, and disposal system. The Monterey Bay Unified Air Pollution Control District (Air District) issued a Notice of Non-Compliance to the City on October 17, 2000 for a series of odor complaints received between August 25 and October 6, 2000. On October 26, 2000, Regional Board staff issued a letter to the City indicating its Odor Management Plan was ineffective in preventing nuisance conditions. The letter also reiterated the requirement for an effective Odor Management Plan in order for the City to request additional domestic wastewater flow capacity. In 2001, the Air District has received twelve odor complaints regarding the City. Five complaints were for odors emanating from the wastewater collection system and seven complaints were for odors from the Industrial Wastewater Treatment Facility.

A component of the third milestone is reduction of effluent salt content. The City awarded a $1 million contract to US Filter/Memcor for microfiltration equipment that will be utilized to treat surface water for a portion of the community's potable water supply. The City and the Sunnyslope County Water District, with the

San Benito County Water District's cooperation, are jointly implementing the membrane filtration system. Bidding on construction of the $1 million treatment facility (to house the membrane filtration equipment) is scheduled to begin on August 6, 2001. The City is also evaluating salt content in major wastewater dischargers to ascertain to what extent their processes can be modified to reduce salt discharge. The City, through the Water Resources Association of San Benito County, has initiated water softener use education as a component of the water conservation program.

The City continues to retain $10 million dollars in restricted sewer funds for development and implementation of the Long-term Wastewater Management Program.

Sewering of Carmel Highlands, Monterey County [Matthew B. Thompson 805/549-3159]

The Carmel Highlands is a Monterey County neighborhood located on the cliff shore of Monterey Bay National Marine Sanctuary, just south of Point Lobos State Reserve. The Highlands area includes the Highlands Inn and Highlands Sanitary Association, which have NPDES permits issued from this Regional Board. The Highlands Sanitary Association treatment system was granted a two-year extension of their NPDES permit at this Regional Board's March 23, 2001 meeting.

The majority of homes in the Highlands utilize septic systems for wastewater disposal. Earlier this year, some homeowners, the Highlands Sanitary Association, and the Carmel Area Wastewater District expressed interest in a sewer project to coincide with the Point Lobos State Reserve sewering. Below is an update, in question and answer format, on the progress of that effort.

What is Monterey County's position on sewering the Carmel Highlands neighborhood?

Monterey County Department of Environmental Health (DEH) will not support sewering of the Carmel Highlands until the area may be declared a public health threat (roughly defined as when 50 percent of leach fields are failing). Based on DEH's records, only 1.5% of all leach fields in the area (or 6 out of 400 homes) have failed.

Do homeowners in the Highlands support sewering of their neighborhood?

Based upon discussions with representatives of the Highlands Association (a limited group of Highlands homeowners), most homeowners are not willing to sewer the neighborhood unless Monterey County will financially support the project. The estimated cost to sewer the entire neighborhood is approximately $19 million. Homeowners have little interest in forming a sanitary district and sewering the neighborhood independent of Monterey County. Many Highlands homeowners believe a sewer will induce unwanted growth in their neighborhood.

Aren't State grant and low-interest loan dollars available for such a project?

Grant dollars are limited and are usually granted only to those projects that would result in a significant benefit to water quality. Since no solid evidence exists that any leach fields are impacting water quality, and Monterey County has not declared the leach fields a public health threat, the likelihood that such a project would receive grant dollars is very low at this time. Low-interest state loans are available, but no public entity has stepped forward to pursue a loan for such a project.

What is the status and timing of the Point Lobos State Reserve sewer project? Will the Carmel Highlands be able to place a pipeline in that trench to accommodate a future sewer line extension to their neighborhood?

The Point Lobos Sewer Project is progressing rapidly. Digging of the trench will likely begin by the end of this year. Considering that no funding or organizational support for a Carmel Highlands sewer project currently exists, placing an extra pipeline in the Point Lobos trench to accommodate future wastewater flows from the neighborhoods of homes will not likely occur.

Are the Highlands Sanitary Association and Highlands Inn going to connect to the Carmel Area Wastewater District?

The Carmel Area Wastewater District has been assisting the Highlands Sanitary Association (6,000 gpd of flow) and the Highlands Inn (30,000 gpd of flow) in the engineering design and

implementation of a sewer line extension to their facility's. The Highlands Sanitary Association and Highlands Inn are currently negotiating each facilities proportion of the project's total cost (estimated at $1.3 million). Connection of the Highlands Sanitary Association and Highlands Inn to Carmel Area Wastewater District will likely be completed within one year. Any future neighborhood sewer project (for individual homes) will be built independent of the Highlands Sanitary Association, Highlands Inn, and Point Lobos State Reserve's current project.

What is next for the Carmel Highlands neighborhood?

Although the neighborhood will not immediately be connected to the Carmel Area Wastewater District, Regional Board staff will continue to investigate identified failing leach fields. Problematic areas may be identified and investigated further for their impact to water quality. If leach fields are found to be adversely impacting water quality, the Regional Board staff will follow-up.

Castroville Sea Water Intrusion Project [Lida Tan 805/542-4785]

On May 31, 2001, Regional Board staff approved a one-year pilot study proposal by the Monterey Regional Water Pollution Control Agency (MRWPCA) to evaluate the potential benefits of amending the pH limit from 6.5 to 6.0 in the reclaimed water from the regional tertiary wastewater treatment plant. The pilot study was briefly discussed in the Executive Officer's Report at the July 13, 2001 Board Meeting. The Board asked about potential impacts on adjacent water supply wells.

Staff discussed the concern with Mr. Greg Antoz, Environmental Manager at MRWPCA. Mr. Antoz informed staff that there are a few private drinking wells near the reclamation area. These wells are screened in the 400-600 feet aquifer. Although there is little monitoring data available from nearby private drinking wells, MRWPCA regularly monitors approximately 16 agriculture water supply wells, adjacent to the reclamation area, screened in the same aquifer as the private drinking wells. Some of the agriculture wells are used to supplement the reclaimed water for irrigation. Recent monitoring results from these agriculture supply wells (February 2001) indicate that the pH levels in the 400-feet aquifer range between 7.09 - 7.58. According to Mr. Antoz, pH level in the 400 feet aquifer has remained neutral over the years. Staff expects pH levels in the private drinking wells to be similar to the levels in the agriculture water supply wells.

As a common and ongoing practice, local growers have been adding chemicals to the irrigation water (reclaimed water mixed with supplemental ground water from the agriculture wells) to lower the irrigation water pH level. This practice increases the soil's water absorption rate. Monitoring data from the agriculture water supply wells indicate the pH levels have remained neutral. Considering current practices and available agriculture water supply data, staff does not believe the reclaimed water pH adjustment project will have any measurable impact on nearby domestic water supply wells. In fact, MRWPCA's pH adjustment project will provide more control on chemicals applied.

CLEANUP BRANCH REPORTS

Corrective Action Plan Approvals

Staff regularly provides the Board with brief overviews of corrective action plans for underground tank cleanup cases. These reports are intended to keep the Board apprised of proposed cleanup activities as well as to comply with public notification requirements of the California Code of Regulations, Title 23, Chapter 16, Section 2728.

Under the public notification requirements, anyone may request review of information and decisions concerning the corrective action plan and the Board may hold a public meeting when requested, if there is sufficient public interest in the plan.

Underground Tank Program

Mushroom Farms, 415 Hall Road, Watsonville, Monterey County [Burton Chadwick 805/542-4786]

In a June 5, 2001 letter, Regional Board staff approved an intrinsic bioremediation/monitored

natural attenuation Corrective Action Plan for the subject facility. As a result of Regional Board concerns stated during the July 13, 2001 Board meeting, the summary below contains some case background and a status report of current conditions.

Two, 10,000-gallon steel underground diesel storage tanks and associated product piping and dispensers were removed from the subject property in 1998. Soil sampling results indicate a small, localized, area of petroleum hydrocarbon impact beneath the former dispenser area. Groundwater, encountered at approximately 25 feet below ground surface, in this area is also impacted with petroleum hydrocarbons. Groundwater flow is toward the southwest at a gradient of 0.002 foot per foot.

Groundwater sampling has been conducted since March 1999. Since that time, with the exception of 1.3 micrograms per liter of benzene detected in well MW-12 on June 29, 2001, only one well, MW/B-10, has detected hydrocarbon contaminant concentrations above water quality objectives. The following table presents historic groundwater data for well MW/B-10 for the petroleum constituents detected.

WELL MW/B-10 (micrograms per liter)				
Date	MTBE	TPHg	TPHd	Benzene
3/23/99	340	670	8700	20
2/03/00	380	1700	1100	<1.3
1/04/01	650	690	710	<20
3/30/01	630	740	310	<5
6/29/01	590	1600	<50	<10

Three wells, MW-11, MW-12, and MW-13, are located approximately 60 feet downgradient (west and southwest) and a second perimeter of wells are located approximately 120 feet from MW/B-10 and generally form an arc from northwest to south of MW/B-10 (See site map Attachment No.3). As noted above, with the exception of 1.3 micrograms per liter of benzene detected in well MW-12 on June 29, 2001, petroleum hydrocarbons have not been detected, or have been below water quality objectives in these wells.

The nearest domestic supply well, owned by Mushroom Farms, is located approximately 700 feet and generally cross-gradient (south) of the area of impacted groundwater. The well, constructed in 1975, has a 50 foot-deep sanitary seal and is perforated from 120 and 160 feet below ground surface. Water testing of this well on January 15, 2001, did not detect contamination.

Based on a March 21, 2001, Site Conceptual Model and Corrective Action Plan prepared by Sampson Engineering, Inc., geochemical parameters indicate that biodegradation of petroleum hydrocarbon contamination is occurring onsite, the dissolved phase hydrocarbon plume appears to be stable and intrinsic bioremediation/monitored natural attenuation is the most cost effective remedial option. Regional Board staff concurs with this conclusion. Mushroom Farms will be required to continue quarterly groundwater monitoring, under the conditions of Monitoring and Reporting Program No. 00-142 issued on October 4, 2000, by the Executive Officer, until hydrocarbon concentrations in groundwater are below State maximum contaminant levels.

Status Reports

Unocal Guadalupe Oil Field, San Luis Obispo County [Katie Anderson – 805/549-3690]

Unocal selected a contractor, Steam Tech, for construction and operation of the steam-injection pilot test. The next step will be for Unocal to design the pilot study, in consultation with Regional Board staff and the expert panel members. The pilot test design must be acceptable to the Executive Officer. The pilot test should begin in first quarter 2002.

Regulatory agencies are now in the process of thoroughly evaluating, via the federal National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) processes, potential alternatives for treatment and reuse or disposal of contaminated soil. Included in this evaluation are soil washing, off-site disposal via trucking or rail transport, slurry injection, landfill, or creating a new dune feature from treated soil. Unocal is drafting project descriptions for each of these alternatives. The public draft CEQA/NEPA document is expected in August 2002. The document could be finalized in July 2003. Land treatment and thermal desorption have already been evaluated in the 1998 environmental review, and are still possible soil treatment alternatives.

Camp Evers Underground Tank Sites, Mount Hermon Road at Scotts Valley Drive, Santa Cruz County [Wei Liu 805/542-4648]

Petroleum hydrocarbon and gasoline additives including BTEX, 1,2-DCA and MTBE have been detected in ground water beneath and downgradient from four gasoline service stations located at the intersection of Mount Hermon Road and Scotts Valley Drive. The contamination plumes from these stations have commingled and migrated offsite. The Regional Board issued Cleanup or Abatement Order (CAO) No. 94-116 on December 7, 1994, requiring the Responsible Parties to investigate and cleanup the petroleum hydrocarbon pollution on and downgradient of the combined site. CAO No. 94-116 also sets cleanup goals for BTEX, TPH, and 1,2-dichloroethane and requires implementation of Monitoring and Reporting Program (MRP) No. 94-116. In 1995, and again in 1997, CAO No. 94-116 was amended, requiring the Responsible Parties to submit and implement a Corrective Action Plan (CAP), and adding or excluding individual Responsible Parties. From late 1994 to late 1996, remediation, mainly soil vapor extraction, was conducted at three of the four sites in compliance with CAO No. 94-116, mainly targeting benzene contamination.

Since late 1997, elevated levels of MTBE have been detected in a nearby active drinking water supply well owned by Manana Woods Mutual Water Company. Two of the four gasoline stations, Tosco and Equiva (former Shell), were identified as responsible parties for the MTBE plume that appears to have migrated downgradient and impacted the Manana Woods well. Later in 2000, another station formerly owned by BP Oil Company was also identified to be responsible for the MTBE contamination. In September 1998, due to increasing MTBE concentrations in the Manana Woods well, the Executive Officer in a letter dated September 9, 1998, required the responsible parties, Equiva and Tosco, to submit a workplan for conducting additional investigation to delineate the extent of the MTBE plume and taking additional remedial actions to control and cleanup the MTBE contamination. In compliance with Regional Board requirements, Equiva and Tosco submitted a Ground Water Assessment and Remediation Workplan in October 1998, started additional investigation and as an interim measure, and installed a carbon adsorption treatment unit to help treat the supply water pumped from the Manana Woods well. The carbon unit has been added because an existing air-stripper was apparently ineffective to treat the elevated concentrations of MTBE (up to 77 ppb) at the wellhead. Meanwhile, Tosco expanded the remediation (soil vapor extraction and air sparging) conducted at its site, and Equiva installed a soil vapor extraction system and a ground water extraction and treatment system that has been operating since late 2000.

In January 1999, the Regional Board required the Responsible Parties (RP's) to submit a new Corrective Action Plan to detail the corrective actions to control the plume migration, specifically MTBE and benzene, and to ultimately cleanup the petroleum hydrocarbon contamination. In April 1999, after the parties made many revisions due to staff comments, staff accepted the parties' remediation plan. The Executive Officer further required the parties to submit a corrective action implementation plan (CAIP) to detail their remediation schedule. In compliance with the Regional Board's April 1999 requirements and after several requested revisions, the responsible parties submitted, and staff approved, the final CAIP in July 1999. Since then, corrective actions were conducted by the parties, in accordance with the approved CAIP with necessary revisions required by the staff during the CAIP implementation. The major tasks of corrective actions being proposed and their implementation status are as follows:

Task	Implementation Status
1. Remediation at the source areas around the service stations	Tosco: Expanded soil vapor extraction and air-sparging; remediation is ongoing. Equiva: Soil vapor extraction is ongoing; ground water extraction system operation began in September 2000. Because the extraction well has been frequently dry, the system was converted to dual phase (vapor/groundwater) extraction in early 2001. BP: Two of the existing wells were included in the interim groundwater-pumping program. Since hydrocarbon removal rate became low due to reduced contaminant concentrations, pumping at the former BP site has been discontinued.
2. Improve and perform wellhead treatment at the Manana Woods well	The supply water pumped from the Manana Woods well has been treated with the existing air-stripper and (a larger) carbon unit. A new wellhead treatment facility with larger capacity to treat MTBE and benzene contamination is being designed to replace the existing system and is to be built in November of 2001.
3. Identify and cleanup the MTBE plume(s) that has migrated off-site to downgradient areas between the stations and the Manana Woods well	A well nest was installed downgradient from the service stations to identify the possible MTBE migration pathway and to monitor migration of the MTBE plume. An interim semi-monthly ground water extraction program has been implemented in downgradient areas between the stations and the Manana Woods well, where high MTBE concentrations were detected. Due to increasing concentrations in the downgradient monitoring wells, frequency and duration of the pumping were required to be increased to weekly and 4 to 8 hours each time, respectively. Upon receiving sufficient monitoring results of the increased pumping program, the need for another more effective remedial alternative for the downgradient plume will be evaluated should the concentrations not decrease.
4. Continue to search and identify the potential source or migration pathway(s)	A thorough water well inventory and an underground storage tank search were conducted. No additional potential contamination source was found.
5. Continue groundwater and well-head treatment monitoring	Groundwater monitoring has been performed according to MRP No. 94-116 and its later revisions. Well-head treatment is being monitored by Manana Woods' consultant and reported in the quarterly report. In June 2001, the parties are required to monitor additional oxygenate additives, such as tributyl alcohol (TBA) and others, due to their potential threats to water sources. The additional analyses will be performed starting from the third quarter

2001 monitoring event.

The corrective actions and groundwater monitoring the parties performed during the past years have complied with Regional Board's requirements such as implementing the CAIP and performing groundwater and well-head treatment monitoring. Some remedial actions, such as installation of groundwater treatment system at the former Shell site and new well-head treatment system was delayed several times due to time for permitting and approval by City of Scotts Valley and Manana Woods, respectively. As noted above, the parties are increasing the interim groundwater pumping program and adding additional oxygenates analyses in their future monitoring program as required. New wellhead treatment system design is also being finalized and installation will begin in November 2001.

In addition to the above, ground water monitoring wells associated with the Camp Evers site and the treatment systems at Tosco and Equiva sites are monitored on a quarterly basis, and the wellhead treatment system is monitored on a weekly basis. MTBE concentrations have generally decreased in the source area (e.g., from the maximum of 86,000 to 920 ppb in Equiva well, MW-4) as of the second quarter of 2001. However, in the downgradient plume area around CEMW-6 and newly installed well nest (CEMW-13 through CEMW-16) MTBE concentrations reduced first in mid-2000, and have been increasing since then (e.g., from 5,630 to 16,000 ppb in cooperative well, CEMW-6). The last quarterly sampling results (second quarter 2001) of MTBE are shown on the attached MTBE concentration map. (See Attachment No. 4) As mentioned above, the the parties were required to increase the remediation effort in the downgradient plume area, and another alternative will be selected if the situation does not improve after the increased pumping.

Meanwhile, Equiva is evaluating the possibility of a new plan for obtaining alternate water supply for Manana Woods customers and converting the wellhead treatment system at the Manana Woods well into a large capacity pump and treat system. Further delineation of the petroleum hydrocarbon plume in the downgradient area of the Manana Woods well is also being considered. Several additional monitoring wells may be required in the area between the Manana Woods well and other downgradient municipal supply wells such as Scotts Valley Water District's Well No. 9. In June 2001, Equiva completed a further site assessment at its site, including soil sampling and installation of four additional vapor-monitoring points and one groundwater monitoring well. (See Attachment No. 5)

Staff will continue to provide delineation and cleanup activity oversight, and will keep the Board apprised of progress at this high priority site.

Former Watkins-Johnson Superfund Site, 440 Kings Villege Road, Scotts Valley, Santa Cruz County [Wei Liu 805/542-4648]

The site is currently used as Silicon Valley Group's Scotts Valley facility (discharger), formerly Watkins-Johnson Company, Inc.'s Stewart Division Plant. Groundwater contamination was discovered at the site in 1983. In the early 1980's, nearby Bean Creek downgradient from the site also was impacted with detectable levels of chlorinated hydrocarbons attributed to the contamination. Main constituents detected in groundwater included trichloroethene (TCE), 1,1-dichloroethene (1,1-DCE) and tetrachloroethene (PCE). The highest TCE concentration detected at this site was once up to 13,000 parts-per-billion (ppb). Both the shallower perched aquifer (not used for water supply) and the regional deep aquifer (main drinking water production zone in the region) were impacted.

Since the discovery of the contamination, the Regional Board has issued three cleanup or abatement orders (CAO) to the discharger for correction of the problem. Groundwater remediation with an extraction and treatment system began in October 1986. The groundwater treatment system consists of two granulated activated carbon adsorption units in series, and has a design capacity of 0.612 million-gallons-per-day (MGD). Treated water has been discharged primarily to Bean Creek, located about 800 feet north of the plant's northernmost building, with a small portion being used for facility supply water and/or injection into the perched aquifer to aid the cleanup. A soil vapor extraction system was added

to the site remediation program in November 1994, and has been continuously operated since then.

The groundwater remediation has been on-going since 1986. Contaminant concentrations in both perched and regional aquifers have been reduced significantly since then. For example, TCE concentrations in the perched zone were reduced from above 400 ppb in 1987, to currently below the detection limit of 0.5 ppb. TCE concentrations in the regional zone also decreased from above 200 ppb in 1987 to recently between 10 and 20 ppb detected in only one well. Since the cleanup goal has been achieved for the perched aquifer, pumping from the perched zone was discontinued over a year ago. During the previous several quarters, groundwater was only pumped from three regional zone wells and TCE concentrations in the treatment system influent have been below the current NPDES Permit discharging limit of 5 ppb. The Responsible Party's consultant is evaluating new alternatives to speed up the final cleanup and expects the remediation may be complete soon.

The facility was included in the National Priority List (NPL) in 1987. Regulatory oversight of the remediation work at this Superfund site was shifted to U.S. Environmental Protection Agency (U.S. EPA) since then. Currently, the Regional Board is only responsible for the National Pollutant Discharge Elimination System (NPDES) permitting and monitoring of the discharge. The Regional Board issued an NPDES permit in July 1986, for the treated groundwater discharge. Since then the Board has re-issued the NPDES permit without any significant revision. In addition, the Responsible Party's consultant, Arcadis Geraghty & Miller, became the owner/operator of the groundwater extraction system in July 1999, and recently applied for a NPDES permit being issued under its name as the Responsible Party for the groundwater remediation/discharging. Staff is currently preparing a new NPDES permit reflecting the current site and discharge conditions and new ownership of the treatment system. The new NPDES permit is planned for submittal for the Board's consideration during its February 2002 meeting.

Underground Tanks Summary Report [Jay Cano 805/549-3699]
(See Attachment No. 6)

Regionwide Reports

Regional Monitoring [Karen Worcester 805/549-3333]

The CCAMP team participated in a three-day long training on field sampling techniques, sponsored by the Department of Fish and Game, Master Contractors for the Statewide Surface Water Ambient Monitoring Program (SWAMP). Consulting experts in quality assurance issues were present, as was technical staff from the U.S. Geological Survey and the CalFed program. The SWAMP program needs to ensure that quality data is collected across all Regions, but must accommodate special study design needs at the Regional level. For example, detection limits which are sufficient for Region 3's nutrient rich waters are inadequate for the oligotrophic waters of the high Sierra in the Lahontan Region. USGS collects extremely detailed, flow- and depth-integrated samples, which are extremely costly. This level of detail may or may not be appropriate for the screening level monitoring for which many of the Regions are striving.

Karen Worcester is working on a SWAMP Bioassessment subcommittee meeting to determine how to strategize a statewide reference study for benthic invertebrate bioassessment. There has never been an organized effort in California to determine what constitutes "best benthic condition". This is important information if bioassessment information is ever to be used in a regulatory framework and is also important for analyzing ambient data. Condition is highly dependent on ecoregion, elevation, slope, and a number of other physical parameters.

Karen attended a SWAMP Roundtable meeting, and presented our Region's SWAMP Workplan for Fiscal Year 2001-2002. The plan includes sampling sites, sampling approach, analyte lists, quality assurance considerations, project budget, and other details about next year's monitoring plan. This plan also contains a 5-year sampling framework and site list. The Funds allocated from SWAMP to our Region this year were $289,787, approximately $10,000 less than the previous year, due to increased overhead from the CDFG Master Contractor. Approximately $400,000 of the $3.6 million statewide budget is being used by CDFG

for data management, quality assurance, and other coordination activities.

A new flow monitoring crew began work for the CCAMP watershed assessment effort. In addition to monthly field sampling, the CCAMP field team has also completed the first two rounds of summer pre-dawn dissolved oxygen monitoring,

Mary Adams gave a presentation on the Central Coast Ambient Monitoring Program at the Northern California Society of Environmental Toxicology and Chemistry meeting in Santa Cruz on June 19.

Karen met with Mark Page of the University of California at Santa Barbara, as well as Morro Bay National Estuary Program staff, to discuss including Morro Bay as one of several estuaries Mark will be studying as part of a multi-million dollar ecological indicators study. This study will look at a variety of biological indicators, including algal growth, fish and benthic invertebrate assemblages, and even parasite assemablages, in an effort to seek sensitive tools for detecting impact. Because of the large amount of background data available for the bay and watershed, he is enthusiastic about including Morro Bay in his program.

Karen attended a planning meeting for the CCLEAN program (the Central Coast Long-term Environmental Assessment Program, formerly known as MBAD or Monterey Bay Area Dischargers). The Memorandum of Agreement between the participating agencies, setting aside the funding and hiring Dane Hardin as Program Director has been completed. Dane is beginning purchase and installation of solid phase extraction columns in effluent and will be testing them in August.

Data Management

Dave Paradies completed development of a data scanning tool, which scans our large dataset for problem waterbodies to aid in revision of the 303(d) list of impaired waterbodies. The software calculates, for individual sites and waterbodies, the percent of individual measurements, which exceed a given standard. This has aided our Regional TMDL (Total Maximum Daily Load) group in proposing waterbodies for consideration on the revised list, but has required that we consider both what the appropriate standards and appropriate "trigger" levels should be for making this determination.

Dave is now under subcontract to the SWRCB, through KENDA, Inc. He is working with each regional board to help set up their data management needs under the SWAMP program, using the CCAMP data structure. He has also been involved in statewide coordination efforts with the CDFG Master Contractors, the Southern California Coastal Water Research Program, and the San Francisco Estuary Institute.

Basin Planning

Howard Kolb and Angus Lewis have completed three-year and ten-year Basin Planning workplans. The Triennial Review List has been revised and is being circulated for public review and comment. It will be presented at the December Board meeting for approval.

Our two basin planners are working with the CCAMP program to develop "watershed assessment" reports, using our data, the literature, and other resources. These reports will be included in CCAMP Characterization Reports, and are being considered for inclusion in the Basin Plan as part of the Surveillance and Monitoring chapter. Given the five-year rotation utilized by the program, each area report would be revised once in a five-year period. The Pajaro watershed will be the pilot watershed for this effort. The goal is to aid in translation of monitoring information to recommendations for action, through Basin Plan revision, regulatory activity, focus of funding efforts, and other approaches.

<u>TMDL Implementation Approach [Lisa McCann 805/549-3132]</u>

Several Board Members and other interested parties have inquired about how Total Maximum Daily Loads (TMDLs) will be implemented. TMDL implementation plans are programs or plans to improve water quality by recommending methods for achieving the necessary reductions in pollutant loadings to achieve water quality standards and maintain beneficial uses. They target specific sources and corresponding corrective measures and provide a framework for using increasingly stringent approaches, if necessary, to achieve water quality goals and

maintain beneficial uses. TMDLs are tools that will enhance the State's ability to implement appropriate measures to reduce nonpoint sources of pollution to waters of the state along with reductions in point sources of pollution.

TMDLs are required to be implemented by both state and federal law. Per federal law, the TMDL, once approved, must be incorporated into the state's water quality management plan (40 CFR § 130.7(d)(2)). Per state law, "a program of implementation" to achieve water quality standards must be included in basin plans (Water code § 13050(j)(3)). A program of implementation includes typical Regional Board mechanisms to implement water quality objectives and protect beneficial uses in the basin plans: orders (National Pollutant Discharge Elimination System permits and Waste Discharge Requirements), conditional waivers of permits, and voluntary or self-determined measures. These mechanisms provide the options available to implement and enforce TMDLs.

California has wide latitude in deciding how to implement its TMDLs. Each or all of the available mechanisms can be used to implement the requirements of any given TMDL. TMDL implementation options can be rigid. For example, if a TMDL assigns a wasteload allocation of *x* to Factory ABC, Factory ABC's permit can require a water-quality-based effluent limit of *x*. Alternatively, TMDLs can be flexible. For example, if a TMDL assigns a wasteload allocation of *x* to Factory ABC, Factory ABC's permit can require a water-quality-based effluent limit of *x plus y*, so long as *y* abatement occurs from implementation of Best Management Practices (BMPs) at the Farm across the road. The TMDL implementation plan should identify these creative options and mechanisms and include as much detail about each one as possible. For permitted discharges, the creative options can then be specified in the permit, consistent with the TMDL implementation plan; the permit can require a contract between the Factory and the Farm. For unpermitted discharges, a "contract" can be established to insure/enhance implementation of the creative options, consistent with the TMDL implementation plan. Examples of "contracts" that could be used in these cases include a legal contract between the farm and the factory, a 319(h) grant project contract between a responsible party and the State Water Resources Control Board, or a Memorandum of Understanding between a responsible party or coordinating organization and the Regional Board that specifies what activities will be implemented and how progress and success will be measured.

TMDL implementation for nonpoint source pollution discharges, is guided by the *Plan for California's Nonpoint Source Pollution Control Program* and the *Draft Compliance Assistance Guidance for Implementing the "Plan for California's Nonpoint Source Pollution Control Program."* These documents explain the three-tiered approach to implementation. The three-tiered approach is the consideration of 1) voluntary or self-determined measures, 2) regulatory-based encouragement by waiving permits, and 3) regulation by requiring effluent limits or enforcement. TMDL implementation plans should describe which tier or tiers apply and how and when movement through the tiers will be determined. Criteria for moving through tiers include: persistence of water quality impairments, whether timely implementation of management practices is being achieved, and whether the self-determined approach (Tier 1) is being used effectively. The monitoring, implementation tracking and evaluation strategies described in TMDL implementation plans facilitate the water quality management structure and information needed to determine how and when to apply the various tiers to achieve water quality standards and maintain beneficial uses.

The following information more specifically illustrates the TMDL Implementation strategy described above:

Table 3. Description and Use of the Three-Tier Approach (from *Draft Compliance Assistance Guidance for Implementing the "Plan for California's Nonpoint Source Pollution Control Program"*), Attachment No. 7; Implementation and Monitoring Plan (from the *Draft Siltation Total Maximum Daily Load for Chorro Creek, Los Osos Creek and the Morro Bay Estuary*) which can be viewed at www.swrcb.ca.gov/rwqcb3/; and Implementation Plan/Schedule and Monitoring Program (from the *Draft San Lorenzo River Watershed Nitrate Total Maximum Daily Load For Santa Cruz, California*) which can be viewed at www.swrcb.ca.gov/rwqcb3/.

The Implementation Plan for San Lorenzo River

Watershed Nitrate TMDL represents the situation described above where a Memorandum of Understanding was established with the County of Santa Cruz per a Basin Plan Amendment to implement the County's Nitrate Management Plan to control nitrate pollution. The Implementation Plan for Siltation Total Maximum Daily Load for Chorro Creek, Los Osos Creek, and the Morro Bay Estuary represents a case where a Memorandum of Understanding might be desirable to improve clarity of roles, responsibilities and authorities of the Morro Bay National Estuary Program, the Coastal San Luis Resource Conservation District, etc.

Inspection and Sampling Schedule [Eric Gobler 805/549-3467]

Recently, the Regional Board asked about inspection and sample scheduling for facilities regulated by National Pollutant Discharge Elimination System (NPDES) Permits and Waste Discharge Requirements. NPDES Permits regulate treated wastewater discharged to surface waters (ocean, rivers, lakes, etc.) and Discharge Requirements regulate waste discharged to land (ponds, landfills, leachfields, reclamation, etc.). The State Board's policy is to ensure compliance through implementation of a comprehensive monitoring and inspection program. Compliance inspection criteria are established in the State Board's Administrative Procedures Manual. Inspection frequency is based on facility type (e.g., municipal, industrial, agricultural, etc.) and threat to water quality (Category I, II, III). Although the Procedures Manual contains inspection criteria, our inspection requirements and commitments are further refined in our annual Program Work Plans. USEPA has additional criteria for NPDES permitted facilities ("major" one per year, "minor" one per five years), but the State Board's criteria are more stringent. Compliance inspections are classified as Level A or Level B. Level A is more comprehensive and includes sampling. Attachment No. 8 clarifies inspection-related terminology.

According to the Procedures Manual, all Dischargers should be inspected annually (Level A or Level B). The table below shows recommended average annual frequency and inspection level. For example, a Category I (highest threat to water quality) industrial discharger should be have two A level inspections and one B level inspection every year.

Facility Type	Category I	Category II	Category III
Mun/Dom	2 A and 1 B	1 A and 2 B	1 B
Industrial	2 A and 1 B	1 A and 2 B	1 B
Agricultural	1 A and 1 B	1 B	1 B
Solid Waste Sites	1A and 2 B	1 B	1 B
Other	1 A and 2 B	1 B	

Findings of each inspection are documented on a standard facilities inspection form. Inspection information is entered into the State Board's data management program, System for Water Information Management (known as SWIM). Instances of noncompliance are also recorded in SWIM and followed up with appropriate enforcement action.

It should be noted that although the above table is the recommended schedule, actual inspection type and number vary from year to year based on resource allocations and commitment priorities. For example, this year's NPDES and Waste Discharge Requirement Workplans indicate that the number of Permits and Requirements needing to be updated may exceed available resources. Thus, Workplan commitments are adjusted to balance priorities. The result is that inspections are reduced in favor of updating orders. This year's NPDES Workplan commits to 10 Level A inspections and 90 Level B inspections, which equates to one Level A for each Major (Category I) and one Level B for each permitted facility. Full compliance with the above table would require 41 Level A and 113 Level B NPDES inspections. Likewise, the Waste Discharge Requirement Workplan commits to eight Level A inspections and 300 Level B inspections. Full compliance with the above table would require 44 Level A and 341 Level B inspections. We hope to be more efficient than our Workplans would predict; and to accomplish more than our "commitments." In comparison, last year we

completed a total of 29 Level A inspections and 471 Level B inspections (NPDES: 20 A's, 112 B's; WDR: 9 A's, 359 B's, or 95% of our NPDES Level A commitment, 124% of our NPDES Level B commitment, 300% of our WDR Level A commitment and 113% of our WDR Level B commitment).

Administrative Reports

Water Quality Coordinating Committee Meeting [Roger Briggs 805/549-3140]

The next Water Quality Coordinating Committee Meeting will be held on November 1-2, 2001, at the Doral Palm Springs Resort. The meeting will be hosted by the Colorado River Basin Regional Board (Region 7). The meeting will begin at 1:00 p.m. on Thursday, November 1 and close at noon on Friday, November 2. Information on the agenda and reservations will be sent to Board members at a later date.

Presentations and Training [Roger Briggs 805/549-3140]

Kathryn Anderson attended a class entitled "Excelling as a First Time Supervisor" on August 20, 2001. Ms. Anderson is also completing the State Training Center online course "Written Communication."

Lou Blanck attended "The Battelle Bioremediation Symposium" June 4-7. On June 13, Lou Blanck gave the same presentation on the geophysics, tectonics, hydrogeology and geology of the Banning-Beaumont area to the Central Coast Geologic Society that he had given to the joint Geological Society of America and American Association of Petroleum Geologists meeting in April. Mr. Blanck also participated in "Achieving Effective Stakeholder Involvement" on July 16, 2001.On June 12-14, 2001,

Frank DeMarco attended a course at UCLA title "Static and Seismic Slope Stability for Waste Containment Facilities." The course was sponsored by State Board and featured two prominent landfill researchers, Dr. Timothy Stark, with the University of Illinois at Urbana-Champaign, and Dr. Craig Benson, with the University of Wisconsin at Madison. Michael LeBrun attended "Managing Multiple Projects, Objectives, and Deadlines" on August 2, 2001. Wei Liu attended "Managing Meetings" at the State Training Center in Sacramento on August 16 and 17, 2001.

The Tanks and Spill Unit, along with participating Local Agencies and consultants, is scheduled to receive training on "Electronic Data Reporting" by the State Water Resources Control Board on September 5, 2001, at the Regional Board Office in San Luis Obispo. Electronic Data Reporting (of groundwater monitoring data) will be required of underground storage tank dischargers, in accordance with recent emergency regulations, starting September 2001.

On August 10, 2001, Environmental Specialist, Amanda Bern, participated in a north San Luis Obispo vineyard tour to review current industry practices. The tour was organized by the Central Coast Vineyard Team, whose mission includes a proactive stance on environmental issues for vineyards. US Representatives, Lois Capps and Sam Farr, also participated in the tour.

The Watershed Assessment Unit reports the following presentations and trainings for inclusion in the EO Report: July 16: SLA, CA. Training on Tools for Effective Stakeholder Involvement. Training conducted by Lisa McCann and Melanie Kreimes; attended by staff of Watershed Assessment Unit, other R3 units and staff from other Regions. July 25: Aptos, CA. Blue Circle Meeting. Presentation by Dominic Roques and Doug Gouzie: Activities of the Regional Board in Santa Cruz Co. with an emphasis on TMDLs. July 31-Aug 2: San Diego, CA. Attendance at USEPA-sponsored NPS Conference by Shanta Duffield and Dominic Roques. Aug 15, 16: Sacramento, CA. Attendance at State Board ArcView training by Dominic Roques. Aug 21: Sacramento, CA. Attendance at State Board-sponsored presentation by Dr. Mansour Samadpour on DNA fingerprinting for pathogen source ID by Shanta Duffield. Aug 22-24: Sacramento, CA. Attendance at Effective Communication Training by Shanta Duffield.

ATTACHMENTS

1. Regional Board Letter dtd 8/3/01 to City of Pacific Grove
2. USEPA Letter dtd 7/20/01 to City of Pacific Grove
3. Mushroom Farms Site Map
4. Camp Evers MtBE Concentration Map
5. Watkins-Johnson Monitoring Wells Location Map
6. Underground Tanks Summary Report dtd 7/20/01
7. Table 3. Description and Use of the Three-Tier Approach
8. Inspection Scheduling Terminolgy

EOrptSEP01/Carol